REVISION OF THE GENUS *SEIROTRANA*, TOGETHER WITH DESCRIPTIONS OF NEW SPECIES OF OTHER AUSTRALIAN COLEOPTERA.

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Seirotrana Pascoe.

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TENEBRIONIDÆ.

In 1866 Pascoe formed the genus *Seirotrana* for the reception of *Adelium catenulatum* Boisd., describing its distinguishing characters in fifteen words, "Characteres ut in *Adelio;* sed elytra prothoraci arcte applicata. Antennæ articulo tertio duobus sequentibus breviore."

It is a pity that Pascoe did not add Blessig's excellent characters for differentiating this genus from *Adelium*, since the latter's third class of Adelia, consisting of *A. parallelum*, *A. elongatum* and *A. catenulatum* are specially described as having "the abdominal process* quite margined, *abruptly truncate*"; and he adds, "they are of elongated form, the intervals on the elytra are alternately shallow and elevated." Another character, which though not common to all the species, is true of thirteen out of the twenty species herein specified, is the crenulated sides of the prothorax.

A better character for differentiating *Seirotrana* from *Adelium* and from *Coripera* is the form of the epipleura, which in *Coripera* is nearly vertical, in *Adelium* rounded or much more acutely joined to the elytra, in *Seirotrana* it is narrower and intermediate,

* I have already spoken of this in my revision of Adelium as the "intercoxal process."

in its application to the elytra between the two former genera, the epipleural fold being subobsolete.*

The interrupted costæ on the elytra cannot be taken as a distinctive character, since it occurs in many species of *Adelium*; while in five species of *Seirotrana*, namely, *S. mastersi*, *S. strigipennis*, *S. crenicollis*, *S. denticollis*, and *S. uniformis* it is replaced by a quite different sculpture.

I have seen the types of all the described species, except of *S. catenulata* Boisd., *S. elongata* Erichs., *S. parallela* Germ., *S. congesta* Pasc., *S. integricollis* Haag-Rut., and *S. geniculata* Haag-Rut., but I have little doubt of my identification of the above.

S. catenulata Boisd., is the commonest species in New South Wales, and is found in all our collections. I have taken it plentifully near Sydney, Newcastle, and in the Illawarra district. Its chief variation seems to lie, as with other crenulated-sided forms, in the greater or less dentation or crenulation; and I am inclined to think, from my observation of the less crenulate forms, (*e.g.*, *S. vicina* Carter, *S. proxima* Pasc., that the female has the more strongly marked incisions on the sides of the prothorax.

S. elongata Erichs., *S. integricollis* Haag-Rut., and *S. paralella* Germ., are allied forms that may be confounded; but are, I think, readily distinguished by the following characters—that is if my identification be correct.

S. integricollis Haag-Rut.—(1) Colour shining dark bronze. (2) Marginal border of pronotum thick. (3) Anterior angles moderately advanced. (4) Elytral costæ fairly distinct. (5) Wider form.

S. elongata Erichs.—(1) Colour black-bronze. (2) Marginal border fine. (3) Anterior angles less advanced. (4) Elytral costæ subobsolete. (5) Form intermediate.

S. parallela Germ.—(1) Colour black-bronze. (2) Marginal border fine. (3) Anterior angles prominent. (4) Elytral costæ elevated. (5) Narrower form.

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* See Pascoe's note, Ann. Mag. Nat. Hist. 1869, pp. 43, 44.

My specimens of *S. integricollis* come, one from Wee Waa, New South Wales, and two from Gayndah given me by Mr. Masters (the latter is the locality given by Haag-Rutenberg).

My two specimens of *S. elongata* were taken by myself near Launceston, Tas. Erichson's species is Tasmanian.

I have a number of specimens of *S. parallela* from Adelaide (Germar's locality); also from Bullarook, Grampians and Apollo Bay, Vic., a district also noted by Blessig for this species.

S. geniculata Haag-Rut.—Two specimens, taken by myself on the hills near Wollongong, but it is known from other parts of New South Wales, a specimen in the Macleay Museum being labelled "Blue Mountains." Though described as black, fresh specimens are really a dark bronze colour, subject to some variation; one of my specimens is distinctly bronze.

S. femoralis Macl.—The type from Gayndah in the Australian Museum is unique. It is very distinct from *S. geniculata* Haag-Rut., in its small size and light colour.

S. proxima Pasc.—Of the two specimens in the British Museum the type has the sides of the prothorax more dentate than the other specimen. I have specimens from Monaro, N.S.W., and from Victoria.

S. congesta Pasc.(*Adelium congestum* Pasc.) = *S. parallela* Germ. —From the description I had little doubt that this *was* a Seirotrana. By some chance I neglected to note the type in the British Museum, but in answer to my enquiries Mr. C. J. Gahan has courteously examined the type for me and writes, "*A. congestum* Pasc., is clearly identical with *A. parallelum* Germ."

S. repanda Pasc.(*Adelium repandum* Pasc.) = *S. dispar* Blackb. —I have closely compared the type of *S. dispar*, kindly lent me by Mr. C. French, with cotypes of *A. repandum* from Gayndah, given me by Mr. Masters, who sent the type to Pascoe, and find them identical. I must express my doubt as to the correctness of the locality given by Mr. Blackburn for this species (viz., Victoria). The species has a wide range from Inverell, N.S.W., to Gayndah; but from a large collection of Seirotrana I have seen

nothing like it from Victoria. The type of *S. dispar* has no locality-label, and it is just possible that Mr. French may have mistaken the locality.

It is strange that Pascoe should have described species of his own genus in the same papers as those in which he described both *A. congestum* and *A. repandum*, without noticing the very distinctions by which he separates that genus from *Adelium*. Thus under *A. repandum* he notes "in the closeness of its prothorax to the elytra, and also in habit, slightly approaching the genus *Coripera*." Mr. Blackburn may well be excused from not suspecting that Pascoe would not recognise his own genus.

S. major Blackb.—Two specimens in the Macleay Museum bear this name, from Tamworth. I have also one specimen from Cape Hawke district which corresponds to these, and to the description (except in colour). The description gives "ænea," while in the note following, Mr. Blackburn says "of a bright (almost nitid) brassy colour." The three specimens mentioned above are shiny bronze, but scarcely "brassy," and are certainly darker than *S. mastersi* Macl. It is probable that the type was unusually bright. Mr. Blackburn has been misled by Pascoe's description of *S. mastersi* in supposing that *S. major* can be differentiated from that species by its crenulate prothorax alone. (See notes on *S. mastersi* Pasc., *infra*).

A strong character in the species I take to be *S. major* is the remarkably coarse and close puncturation of the pro- and metasternum; while the fore femora are covered with smaller punctures, and the epipleuræ are coarsely but more distantly punctured. From the specimens before me the most apparent distinctions between *S. major* and *S. mastersi* are as follows:—

S. major Blackb.—Colour shining dark coppery bronze (varying to lighter). Prothorax: disc strigose, coarsely punctate, *without* larger punctures; anterior angles more acute. Sternum densely and coarsely punctate.

S. mastersi Pasc.—Colour brilliant coppery-bronze. Prothorax: disc finely punctate, *with* larger scattered punctures; anterior angles less acute. Sternum finely punctate.

S. mastersi Pasc.—The description of this species is misleading from faults both of omission as of commission. I have three specimens from Queensland which I have compared with the type, and which correspond to the Macleay Museum specimens.

The very brief description (Ann. Mag. Nat. Hist. 1870) gives the margin of prothorax as entire, "marginibus integris," and in the note following "the margins with a raised linear border." This border is certainly not interrupted, but is distinctly wavy, and in some cases sufficiently so to be called "toothed." There is no material difference in this respect between *S. major* and *S. mastersi*; in both species the crenulation is faint in the anterior portion, but more distinct near the base. The most noticeable omission by Pascoe is the failure to note the small shining pustules placed (as in *S. major* Blackb.) on the elytral interstices between the rows of punctures. These are smaller and less obvious than in *S. major*, but are sufficiently distinct. Thus it will appear that the only evident characters by which we can distinguish these two species are those tabulated above. These differences are, however, very considerable, and especially in the widely different puncturation of their respective pro- and metasterna, *S. mastersi* having a much finer and less pronounced sculpture. The puncturation of their epipleuræ is also very different. In *S. mastersi* the punctures are confined to the lower part, *i.e.*, nearest the abdomen, leaving a smooth surface nearest the elytra; in *S. major* the punctures are irregularly scattered over the whole epipleuræ, with an irregular line of them immediately next the elytral borders, while the border is itself more strongly marked and reflexed at the humeral angles in *S. mastersi* than in *S. major*.

S. strigipennis Bates.—I have a cotype from the British Museum labelled "Adelaide R."

S. punctifera Macl.—Two cotypes from Gayndah, obtained through the courtesy of Mr. Etheridge and of Mr. Rainbow of the Australian Museum.

S. nasodermoides Pasc.—Two cotypes from Wide Bay, also from the Australian Museum.

The total number of species thus known to me is twenty, and these can be readily divided into two groups.

i. Those having the sides of prothorax crenulate or dentate, and with the disc of pronotum more or less vermiculate-punctate without larger punctures.

ii. Those having the sides of prothorax entire, and the disc of pronotum with larger punctures irregularly placed among smaller.

To this arrangement *S. mastersi* Pasc., is a solitary exception, since by its crenulate-sided prothorax it belongs to group i.; while in its having larger punctures on its pronotum it should be in group ii. Its close affinity to *S. major*, noticed above, makes it more naturally belong to group i.

The following tabulation will be of assistance in determining the species.

Group i. Sides of prothorax crenulate or dentate.
A_1. Disc of pronotum more or less vermiculate-punctate, without larger punctures (except in *S. mastersi* Pasc.).
B_1. Elytra with alternate intervals catenulate.
C_1. Size large, more than 15 mm. long.
1. D_1. Pronotum strigose without larger punctures...*major* Blackb.
2. D_2. Pronotum punctulate with larger punctures ...*mastersi* Pasc.
C_2. Size smaller, less than 15 mm.
3. E_1. Colour black, legs concolorous..... .....*catenulata* Boisd.
E_2. Femora yellow at apex.
4. F_1. colour black, or deep bronze.....*geniculata* Haag-Rut.
5. F_2. Colour bright copper, size much smaller....*femoralis* Macl.
G. Colour dark bronze, subnitid.
6. H_1. Form more convex..... .....*proxima* Pasc.
H_2. Form depressed.
7. I_1. Suture at apex flat.....*vicina*, n.sp.
8. I_2. Suture at apex nodulose..... *vertebralis*, n.sp.
B_2. Elytra with alternate intervals scarcely interrupted.....
9. *monticola* Blackb.
B_3. Elytra with all intervals subcostate and crenulate.....
10. *strigipennis* Bates.
A_2. Disc of pronotum nodulose.
J. Colour brown.
11. K_1. Edge of prothorax crenulate... .....*crenicollis* Pasc.
12. K_2. Edge of prothorax strongly dentate.....*denticollis*, n.sp.
13. A_3. Disc of pronotum longitudinally grooved.....*nosodermoides* Pasc.

Group ii. Sides of prothorax entire.

A. Disc of pronotum with large punctures irregularly placed.

B_1. Colour olive-bronze, shining.

C_1. Size large, form convex.

14. D_1. Elytra without elevated costæ.....*punctifera* Macl.

C_2. Size much smaller.

D_2. Elytra with interrupted costæ faintly elevated.

E_1. Form broad and flat.

15. Sides of prothorax moderately rounded.....*repandum* Pasc.

dispar Blackb.

E_2. Form more elongate and parallel.

16. G_1. Border of pronotum thick.....*integricollis* Haag-Rut.

B_2. Colour bronze-black.

17. G_2. Border of pronotum fine.....*elongata* Erichs.

D_3. Elytra with interrupted costæ strongly elevated.. ..

18 *parallela* Germ.

congesta Pasc.

B_3. Colour black.

19. H_1. Elytral costæ elevated only at apex.....*simplex* Blackb.

20 H_2. Elytra uniformly striate-punctate.....*uniformis*, n.sp.

The following are the descriptions of the new species in the above table :—

SEIROTRANA VERTEBRALIS, n.sp.

Oval-depressed, bronze, subnitid, tarsi red, legs, antennæ and palpi reddish-brown.

Head rugosely punctate on front, more finely punctate on epistomal ridge, the latter only slightly raised above frontal surface. Antennæ short and stout; third joint much shorter than fourth and fifth combined, apical joint ellipsoidal and little longer than preceding, joints gradually thickening from base to apex. *Prothorax* slightly convex, without foliate margins, half as broad again as long ($3 \times 4{\cdot}5$ mm.), edge with border raised and slightly crenulated. Anterior angles obtuse and slightly produced forward. Sides very gradually rounded, sinuous near base. Hind angles rectangular. Front and base sinuate, the latter having scutellar region advanced, border in both narrower than at sides. Disc densely but finely subvermiculate-punctate, the slight vermiculation consisting of raised shining lines more or less longitudinal; sculpture coarser towards the sides. *Elytra* oval, about twice

and one-half as long as and a little wider than prothorax; shoulders slightly obtuse, scutellum widely transverse and elliptic, very finely punctate. Each elytron lineate-punctate with ten lines of regular punctures; alternate intervals, viz., third, fifth, seventh and ninth with raised shining elongate nodules which become shorter towards apex. The sutural lines themselves nodulose towards apex only. Epipleuræ coarsely punctate. Abdomen pitchy-brown and very finely punctate. Intercoxal process raised and truncate. Front tibiæ moderately bowed, other tibiæ straight. *Dimensions*—15 × 5 mm.

Hab.—Blackheath, Blue Mountains (H. J. Carter).

A very distinct species. In general shape somewhat like *S. parallela* Germ., but differing in the absence of large punctures on pronotum, its crenulate sides and more oval form. The nodulose suture is a strong distinctive character, while the basal portion of the elytra is free from any sign of nodulation.

SEIROTRANA VICINA, n.sp. (Text fig. 1).

Elongate-ovate, depressed, dark bronze, subnitid; tarsi, palpi and antennæ brown.

Fig. 1.

Head and prothorax coarsely vermiculately punctate. Antennæ short (but thinner than in *S. vertebralis*), third joint little longer than fourth. *Prothorax* differs from that of *S. vertebralis* in the following particulars—sides notched, deeply in the female, less deeply in male, anterior angles strongly produced forward, sides more widely rounded and angulately incurved at base (where the dentation ends). Disc more coarsely punctate, the longitudinal lines more prominent, and having two larger depressions on basal half. *Elytra* more parallel than in *S. vertebralis*, with shoulders sharply margined, the raised intervals wider, less elevated, shining, and more evenly divided into elongate nodules. Suture flat throughout, and the seriate punc-

tures are much larger than in the preceding species. Abdomen dark bronze. *Dimensions*—10·5 × 4·7 mm.

Hab.—Grose Valley, Blue Mountains (taken by the author).

While having a similar general facies to *S. vertebralis* mihi, the form is shorter, squarer, and more parallel, the colour much darker, especially on the abdomen, while the widely different shape of the prothorax, its dentate edge, and coarser sculpture distinguish it. The female specimen is lighter in colour, with more dilated tarsi, and more dentate edge of prothorax than the male.

SEIROTRANA DENTICOLLIS, n.sp. (Text fig.2).

Reddish-brown, opaque, flat, elongate and parallel, legs and antennæ lighter.

Head rugosely punctate, epistoma with a triangular split in the middle, front with a raised line of shining nodules forming a horse-shoe impression, having its arms pointing forward. Eyes large and nearly round when viewed from above. *Prothorax* longer than broad, strongly emarginate in front and base. Anterior angles roundly acute and a little recurved, narrower at base than in front and scarcely coarctate. Sides and front with broad red margin, this much narrower at base. Sides strongly dentate, widest part forming largest tooth at middle; gradually narrowing towards base; posterior angles rectangular. Disc thickly covered with raised shining nodules, and two wide depressions near posterior angles. *Elytra* wider than prothorax at base, and more than twice as long. Shoulders round and subrectangular. Sides parallel to apical third, then strongly vertically undulate. Disc with four rows of elongate shining nodules, alternating with five irregularly duplicated rows of minute and more depressed nodules. Surface undulate, especially towards apex. Epipleuræ wide and thickly granulated. Body beneath thinly clothed with brown decumbent hair. Femora with broad yellow ring near apex. *Dimensions*—11 × 4·2 mm.

Fig.2.

Hab.—Perth, W.A.

I have received a single specimen of the above from Mr. W. L. Du Boulay. While closely allied to *S. crenicollis* Pasc., and therefore totally unlike all other known species, it differs from that species in (1) the strongly dentate edges of prothorax; (2) the curiously undulate surface of the elytra; and (3) the much less regular pustulation of the elytral disc. My specimen is distinctly smaller than each of three specimens of *S. crenicollis* before me, whose average is 13 × 5 mm.

SEIROTRANA UNIFORMIS, n.sp.

Elongate-ovate, convex, black, nitid, antennæ, palpi and tarsi piceous.

Head coarsely punctate; antennæ stout, four apical joints continuously increasing in size, apical joint much the largest and oval. *Prothorax* convex, a little wider than long, front and base subtruncate; anterior angles very moderately advanced and nearly rectangular; base somewhat bilateral from the advance of the central portion of the elytra; posterior angles rectangular. Sides evenly and moderately rounded, sinuous towards posterior angles; recurved border at sides thick, narrower at apex, obsolete at base. Disc finely punctate, with larger punctures irregularly scattered on surface, but more frequent near base. Larger fovea at middle of sides near border. Central canal obsolete or scarcely indicated near base. *Scutellum* widely transverse, apparently smooth. *Elytra* elongate, subparallel, about twice and one-half as long and same width as prothorax, to which it is closely applied. Punctate-striate, with eleven striæ on each elytron; punctures in striæ large, regular and close. Intervals smooth and convex, especially towards sides and apex. Epipleuræ coarsely punctate. Abdomen longitudinally strigose, black and shining. All tibiæ bowed. *Dimensions*—14 × 5 mm.

Hab.—Quirindi, N.S.W. (Mr. J. K. Hay).

Two specimens of the above, labelled Quirindi, N.S.W., were amongst some Coleoptera received from the late Dr. C. D. Clark. While in general shape and colour it approaches *S. simplex*

Blackb., its elytral sculpture is widely different, the intervals being uniform and convex, with a slight tendency to waviness; while the punctures are much larger and closer than in that species. This is the only Seirotrana known to me, except *S. strigipennis* Bates, having no indication of nodulose elytra. The above diagnosis sufficiently differentiates it from *S. strigipennis*.

Hyocis bicolor (n.sp. *Trachyscelinarum*).

Head, prothorax, and underside dark ferruginous, elytra pale yellow with black markings, antennæ and legs pale rufous.

Head and prothorax closely punctate; antennæ shorter than in *H. Bakewellii* Pasc., with the last joint a lighter colour than the rest. *Prothorax* transverse, very similar to that of *H. Bakewellii* but less sinuate at the sides near base, and with posterior angles rectangular; disc closely clothed with whitish hair; median line distinct. *Scutellum* triangular. *Elytra* adorned at the middle of the disc with a large O-shaped black mark (this marking sometimes a little incomplete), obscure and irregular black markings near base: striate-punctate, the punctures closer and smaller than in *H. Bakewellii*, each puncture bearing a short yellow hair. Intervals convex. Fore tibiæ strongly dilated and bowed, other tibiæ straight. Under surface punctate and thinly pilose. *Dimensions* —2·5-3 mm. long

Hab.—Botany Bay, near Sydney, N.S.W.

I have five specimens of this very distinct insect, taken by myself on the sandhills at La Perouse, Botany Bay. I have compared it carefully with Macleay's species, *H. pallida* and *H. pubescens;* also with identified specimens of *H. Bakewellii* Pasc., *H. subparallela* Champ., and *H. occidentalis* Blackb. Mr. Blackburn has also kindly compared it with his other two species, *H. nigra* and *H. variegata*. From all of the above it is readily differentiated by colour alone; while the widely dilated fore tibiæ further distinguish it from any other Hyocis known to me.

ADELODEMUS EXCISICOLLIS, n.sp.

Oblong-oval, opaque brown, covered above and below with a thick squamose derm.

Head: labrum emarginate, punctate, with apex concave and fringed with brown hair; epistomal ridge clearly separated from front by a transverse depression, front subbilobed and depressed, with a longitudinal raised line in middle; eyes narrower than in *A. squalidus* Macl.; antennæ short and stout (not reaching beyond apical half of prothorax when set back); first joint thick, second very small and bead-like, third joint longest but not so long as fourth and fifth combined, joints 4-10 equal, eleventh longer than tenth and ovoid. *Prothorax* (4 × 5·5 mm.) widest behind middle, as wide at base as at apex, slightly convex on disc, with broad recurved foliate margins, deeply excised near hind angles (quasi-bilobed), anterior margin bisinuate, produced in middle in two raised humps (one on each side of the wide central channel), anterior angles prominent and acute; sides subangulately widened to beyond half-way, then suddenly excised rectangularly to nearly the full width of the lateral foliation, the posterior lobe forming a wide subrectangular posterior angle, this also recurved; base bisinuate and divided by the wide sutural channel. Disc and head alike covered with rugose punctures, more or less obscured by the squamose clothing. *Elytra* broader than prothorax at base, but the maximum width of each approximately equal; oval, convex, shoulders narrowly rounded, apex more acuminate and with steeper declivity than *A. squamosus*. Striate-punctate, both striæ and punctures somewhat obscured by derm, the intervals strongly pustulose and punctate, especially towards sides. Sternum foveate-punctate. Legs and abdomen squamose, femora hairy. Tarsi and tibiæ very much as in *A. squamosus*. *Dimensions*—15 × 6 mm.

Hab.—Victoria (received from Mr. C. French, F.L.S., Government Entomologist of Victoria); Gippsland (one specimen taken by Mr. H. M. Giles).

This interesting addition to the Australian Tenebrionidæ is a close ally of *A. squamosus* Macl., in its general structure, oral

organs, antennæ, legs and tarsi. It is easily distinguished by its remarkable prothorax, the anterior lobe of the lateral foliation being shaped like an elephant's ear. The wide and pronounced median line of the pronotum, on each side of which the antero-median lobe forms two rounded humps, is also remarkable. The derm which clothes the whole insect is readily removable, showing an opaque black surface beneath.

Ceropria bifasciata, n.sp.

Ovate, convex, nitid. Head and prothorax blue-black, with violet reflections; elytra the same colour, with yellow fasciæ as below; antennæ and legs brown; abdomen and under side of legs red.

Head: front and epistoma finely punctate, head narrower and more narrowly rounded than in *C. peregrina* Pasc. *Prothorax* more than twice as broad as long, truncate in front, sinuate behind, with two pronounced foveæ near basal border; anterior angles obsolete, posterior angles obtuse, wider at base than at apex; sides gently rounded. Disc minutely punctate. *Elytra* convex, striate-punctate with rows of closely placed punctures, these finer than in *C. peregrina*. Intervals flat, except near sides, the border sharply defined. Scutellar region, suture and ground colour metallic black with violet reflections, with two fasciæ yellow interrupted at suture, first at base wide and regular extending from border to near suture, second on apical third part of disc narrower, extending from border to half-way across each elytron, where it is curved towards apex. *Dimensions*—9 × 4·5 mm.

Hab.—Cairns, N.Q.

In form very like *C. peregrina* Pasc., its sculpture more resembling that of *C. valga* Pasc., from both of which it is easily distinguished by its yellow fasciæ.

Platydema metallicum, n.sp.

Oval, moderately convex, dark blue (sometimes violet), shining, body beneath, antennæ, legs, and palpi rufo-castaneous.

Head finely punctate, with transverse impression clearly separating front from episterna, without any erect horn to distinguish the sexes. *Prothorax* transverse, moderately convex, twice as broad as long, slightly narrower at apex than at base; anterior and posterior angles acute, sides very little rounded; base strongly bisinuate and closely fitting elytra, with median lobe slightly produced backwards; distinctly and closely punctate. *Scutellum* bronzy and triangular. *Elytra* a little wider and more convex than prothorax, elongate-elliptic, with greatest width behind middle; about once and one-half as long as wide; disc strongly striate-punctate, with intervals rather flat and very minutely punctate. Metasternum smooth and shining, abdomen with the four apical segments longitudinally strigose at their junctions; intercoxal process acutely rounded. *Dimensions*—Length 4 mm.; width 2(vix)mm.

Hab.—Sydney (found commonly in old fences by the author).

I cannot find that the above common insect has yet been described. It differs from all its Australian congeners, except *P. novicum* Motsch., in its metallic blue colour; whilst *P. novicum* is described as being twice the size of *P. metallicum*, and having its head and pronotum black. With nine specimens before me, I am unable to distinguish any sexual differences.

Heterocheira nitida, n.sp.

Black, very shiny, body beneath piceous-red, legs, antennæ and palpi rufo-castaneous.

Head and *prothorax* almost smooth and very nitid, the latter much wider at base than at apex. *Elytra* striate-punctate, the striæ very distinct on disc, less clear towards the sides; punctures in striæ regular and well defined. Pro- and metasternum smooth and shining, abdominal segments faintly longitudinally strigose; legs smooth and shining. *Dimensions*—6 × 2·8 mm.

Hab.—Cairns, N.Q. (sent by Mr. Anderson; also taken by Mr. H. Hacker).

I have three specimens, probably correctly identified by Mr. Blackburn, of *H. australis* Boisd., which are superficially like the

above; on closer examination, the following comparison of characters will readily differentiate *H. nitida* :—

H. australis.—Colour brown, moderately nitid. Sides of prothorax subparallel till near front angle. Pronotum finely but evidently punctured. Elytral intervals punctate. Punctures in striæ indistinct. Pro- and metasternum strongly punctate. Abdomen rugose. Legs and abdomen concolorous, piceous. Under surface of legs punctate. Dimensions—8 × 3 mm.

H. nitida.—Colour black, very nitid. Sides of prothorax rounded and narrowed anteriorly. Pronotum scarcely punctate. Intervals smooth. Punctures in striæ strongly marked. Pro- and metasternum smooth. Abdomen faintly strigose. Legs a much lighter colour than the abdomen. Under surface of legs smooth. Dimensions—6 × 2·8 mm.

The wide difference of locality is also to be noted, West Australia being stated in Masters' Catalogue as the habitat of *H. australis* Boisd. (My own specimens have no locality-label).

Pterohelæus nitiduloides, n.sp.

Broadly ovate, depressed, reddish-brown; legs, flanks, and suture near scutellum red.

Head with narrow, square, truncate clypeus, divided from the front by a raised tuberculate impression; behind this the front hollowed in centre and strongly punctate. Antennæ short (at rest extending to one-half length of prothorax) with the apical joints strongly clavate, apical joint globular and hairy. *Prothorax* very transverse, almost semicircular anteriorly, subtruncate posteriorly, with narrowly reflected border becoming obsolete near hind angles; anterior and posterior angles obtuse, much wider at base than at apex, sides gradually and evenly rounded, but suddenly incurved near base. Disc without central canal, and covered with short, decumbent, reddish pile, beneath which are obscure rugose punctures. Scutellum widely elliptic. *Elytra* narrower than prothorax, sides nearly parallel; bluntly rounded at apex, with very narrow border obsolete at apex. Disc covered (but far more sparsely than pronotum) with fine recumbent red

hair; finely costate, with about six faintly perceptible costæ becoming obsolete near sides. Intervals finely rugulosely punctate. Epipleuræ narrow. Abdomen densely punctate and pubescent. *Dimensions*—4·5-6 × 2·5-3 mm.

Hab.—Medlow, Blue Mountains, N.S.W. (taken by the author).

I captured a considerable number of this small Pterohelæus in September, 1907, on the underside of a dead tree, in the crevices of which they were so well concealed by their colouring as to be difficult to detect. Its nearest ally in colour and facies is *P. thymeloides* Pasc., from South Australia, which is, however, a much larger and more convex insect (among other differences). The only other Pterohelæus known to me of such minute dimensions is *P. opatroides* Macl., which is black in colour, longer and narrower than the above, with a widely different sculpture. The strongly clubbed antennæ in conjunction with its small size should enable this species to be easily identified.

CHARTOPTERYX IMPERIALIS, n.sp. (Subfamily *Cyphaleinæ*).

Elliptical-elongate, glabrous, subnitid, chocolate-brown above, darker beneath, tibiæ and basal joints of antennæ red.

Head: labrum emarginate, hairy, truncate in front, widely rounded on sides; epistoma prominent, raised and punctate, sinuate in front, meeting the square antennal orbit at right angles. Eyes very large, coarsely faceted and separated by about one-half width of one eye. Front more finely punctate than epistoma. Antennæ long, extending beyond base of prothorax, first joint stout, second thinner and very short, third as long as fourth and fifth combined. Joints 4-7 of equal length; 8, 9, 10 shorter and thicker; 11 about as long as 9 and 10 together. Joints 1-7 red and smooth, 8-11 brown and hairy. *Prothorax* almost flat, 6 × 10·5 mm., the length (excluding front angles) being measured at middle, the width at base. Width at apex 6 mm. Truncate in front, except for prominent and wide front angles, these acute, slightly reflexed, and extending the full length of the eyes. Sides very gently rounded, and slightly produced backwards at posterior angles, the latter acute. Base

strongly bisinuate. The whole pronotum margined by a raised shining border, thickest near anterior angles, thinnest at base. Disc slightly raised in middle, depressed towards sides, glabrous, but under a lens seen to be closely and finely punctate. At posterior angles are small subfoveate depressions. *Scutellum* large, forming an equilateral triangle with sides a little curved; minutely punctate. *Elytra* 25 × 16 mm. Oval and very convex. At base the same width as prothorax, soon widening in a regular curve to the greatest width behind middle, near apex rather suddenly and sinuately incurved, each elytron separately rounded at apex. This subapical sinuation emphasised by the raised shining border being discontinuous, the border from the shoulder backwards ending abruptly at three-quarters the length, a second more prominently raised border beginning *inside this*, and continued to apex. Disc very convex, with the greatest height in front of middle, gradually curved to apex. Glabrous, closely, finely, punctate, except sutural region and two smooth longitudinal lines on each elytron. *Abdomen* and whole underside smooth and very minutely punctate, the punctures becoming more evident (but requiring a strong lens to be seen) towards apex. *Legs*: femora and tibiæ smooth, the latter straight, very little thickened at apex, with small spine on inside.* Posterior tarsi with basal joint not as long as the rest combined. *Dimensions*—34-35 × 16 mm.

Hab.—Kuranda, N.Q. (Messrs. C. Dodd and H. Brown).

I have two specimens, the female from Mr. Dodd, the male from Mr. P. Shaw, who received it from Mr. H. Brown. I have seen one other specimen in the collection of Mr. C. French. It is by far the largest species of the group, but I have little doubt in placing it in this genus. The male has the prothorax slightly more widely rounded, the fore tarsi more transverse, the elytra more convex, and the abdomen thicker.

* Pascoe in his tabulation of Cyphaleinæ (Ann. Mag. Nat. Hist. April 1869, p.288) gives "basal joint of posterior tarsi as long as the rest together;" but in *C. childreni* Westw., and *C. victoriensis* Blackb., the proportions are much as in the above species.

MELAPS, n.gen. (Subfamily *Apocryphinæ*?).

Head triangular, inserted in prothorax as far as the eyes, antennal ridge small. Eyes prominent, round, entire. Antennæ scarcely covered at point of insertion; long, filiform and scarcely thickened towards apex; scape cylindrical, second joint obconic, third about twice as long as the scape, 4-10 about the same length and thickness, eleventh lineate-ovate, but not perceptibly thicker than preceding. Mentum subquadrate, membranous, maxillæ short, maxillary palpi very long with last joint securiform. *Prothorax* very convex and spherical; base and apex truncate, more than one-third as broad again as long, regularly rounded at sides; not margined. Base angles obtuse but marked, base closely fitting elytra. *Elytra* short, ovate, epipleuræ narrow and vertical, with the flanks of elytra raised above them. Shoulders close to but not meeting base angles of elytra, declivous; apterous, *Legs* stout, femora thickened, tibiæ slightly bowed at base and expanded at apex. Anterior tarsi with claw-joint longest, posterior tarsi with first joint as long as second and third combined; tarsi pubescent. Anterior coxæ globular, moderately separated; middle and posterior coxæ more widely separated, without trochantin. Metasternum shorter than mesosternum. *Abdomen* with penultimate segment narrower than the rest.

MELAPS CISTELOIDES, n.sp. (Text fig.3).

Very convex, ovate, black, shining.

Head subtriangular, finely but distinctly punctate, and sparingly pilose, hairs castaneous. Mentum, palpi, tibiæ and tarsi reddish. Palpi very long. Antennæ with joints 1-10 reddish, 11-13 black; not perceptibly thickened towards apex, joints long and narrow as above. Much longer than head and thorax combined. *Pronotum* very convex and spherical, base and apex truncate; width is to length as 25 : 18; greatest width at middle. Anterior angles obsolete, or so declivous as to be obscured by the convexity. Sides regularly rounded, posterior angles obtuse. Disc finely but distinctly punctate, punctures regular and distant; two round

depressions symetrically placed on each side of the middle, with no trace of medial canal. *Scutellum* transversely elliptical. *Elytra* convex, oval, glabrous, closely joining pronotum at base, but shoulders declivous and not meeting hind angles of pronotum. Sides gradually widening in a curve to half-way, then narrowing to a sharp point at apex; punctured similarly to pronotum, but the punctures coarser, producing short castaneous hairs. Body beneath and legs a piceous-red, shining. Femora swollen; tibiæ slightly expanded at apex and armed with a small spur; tarsi scantily and shortly pubescent. *Dimensions*—8 × 3·1 mm.

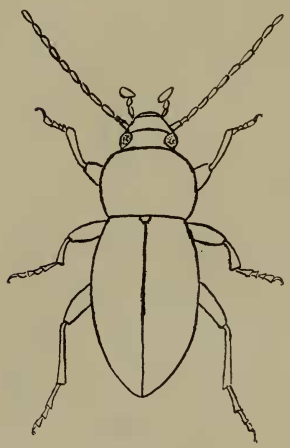

Fig. 3.

Hab.—Mount Kosciusko (under logs; two specimens collected by the author).

This insect is entirely different from any Australian Tenebrionid I have yet met with. It is remarkable for the entire absence of striæ or costæ, combined with its convex form, and cistelid-like facies of legs and underside. It is most like *Melytra ovata* Pasc., in some respects, but differs widely from this insect in the shape of the prothorax and the structure of its antennæ. I have placed it provisionally in this section of the Tenebrionidæ with some diffidence.

Hymæa laticollis.

Elongate, subcylindrical; shining fulvous-brown, darker on front and pronotum, oral regions, epistoma and antennæ reddish.

Head placed vertically, coarsely punctured, less triangular, proportionately shorter and with eyes less prominent than in *H. succinifera* Pasc.; antennæ more slender and lineate, with the three apical joints more bead-like, *i.e.*, less flattened and more

globose. *Prothorax* ovate-cylindrical (sometimes cylindrical when viewed from above, distinctly and angulately widened in the middle when viewed from the side), wider than head, apical portion elevated and forming a hood-shaped lobe, separated from the posterior portion by a semicircular depression with extremities near the anterior angles. Truncate in front and behind, with anterior lobe slightly produced so that the anterior margin appears excised near the angles. Posterior angles obtuse and minutely toothed. Disc more densely but less deeply punctured than *H. succinifera*, and without any superimposed tubercles; scutellum large, transverse, semi-elliptic and fulvous. *Elytra* distinctly longer than head and thorax together, not wider than prothorax, elongate-ovate, glabrous, basal half subparallel, very slightly widened before apex, shoulders rounded but distinct, sides with narrow horizontal yellow border. Epipleuræ narrow and oblique. Seriate-punctate, punctures in series large and close, the lines of punctures less regular than in *H. succinifera*, giving the raised nitid interstices a wavy appearance. On each elytron are amber-like tubercles less raised than in *H. succinifera* and placed as follows: two longitudinally oval spots on basal half (inner one nearer base), one smaller spot near apical declivity, a fourth much larger than this, on the shoulder. Undersurface, especially abdomen, coarsely punctate. Colour brown-black; legs dark amber-colour, five femora armed on inner ridge with blunt tooth; tarsi pilose. *Dimensions.*—5 × 1·5 mm.

Hab.—Sea Lake, Victoria.

This description has been made from a unique specimen sent by Mr. G. C. Goudie, who now possesses the type. It is a doubtful congener of *H. succinifera* Pasc., as the characters of the genus *Hymœa* (Ann. Mag. Nat. Hist. Jan. 1869) would have to be modified to include this insect, especially as to the shape of the head and its insertion in the thorax, shape of prothorax and body. The sculpture of the elytra, the structure of the antennæ, the oral organs and the abdomen are closely similar, so that, provisionally at least, it may be referred to this genus. The most striking difference lies in its hood-shaped prothorax, and in

its vertically placed head, almost resembling in this respect the genus *Bostrichus*.

BYALLIUS KOSCIUSKOANUS, n.sp.

Elongate-oval, moderately convex; black, subnitid, antennæ piceous-red; antennæ, labrum, and tarsi clothed with golden pile.

Head closely, coarsely punctate, labrum and rounded sides of mentum prominent, the former separated from the clypeus by a brown membrane. Clypeus truncate, without epistomal ridge, with front angles rectangular. Antennal orbits prominently raised and parabolically rounded in front of eyes. Antennæ with third joint at least as long as fourth and fifth combined; joints 4-7 obconic, 9 and 10 oval, 8 intermediate in shape between 7 and 9, 11 much longer than 10, oval; apical joints flatter, less nitid, and lighter in colour than basal. *Prothorax* very convex, wider than long (5 × 7 mm.), with greatest width near base, wider at base than at apex; sinuate in front, anterior angles prominent, acute and a little reflexed. Sides scarcely foliaceous, little rounded, with the thickened edge more upturned towards front than towards base, edge much thinner at base and apex; posterior angles widely obtuse, scarcely distinct and deflected. Disc finely punctured, sometimes with a transverse line near base forming a basal lobe. *Scutellum* widely transverse and triangular, punctured as on pronotum. *Elytra* ovate and strongly convex, wider than prothorax at base, about once and one-half longer than wide, gradually widening posteriorly, greatest width at apical third. Reticulately rugose, with three rows of wavy subcostate lines on each elytron; the whole distinctly but finely punctured, and margined by a thin subcrenulate border. Legs, abdomen, and sternum coarsely punctate. *Dimensions* 18-21 × $7\frac{3}{4}$-11 mm.

Hab.—Lower slopes of Mount Kosciusko, near Jindabyne, N.S.W. (taken by the author).

This insect differs from the only other member of the genus (*B. reticulatus* Pasc.) in the following particulars. Prothorax shorter, in proportion to length, much more convex, and with

sides much less strongly rounded and recurved. (N.B.—The figure of *B. reticulatus*, Ann. Mag. Nat. Hist. 1869, pl.x. fig.6, exaggerates the recurved sides). The elytra are less coarsely rugose, but the punctures above and below are larger and more distinct. The abdominal punctures especially differ; in *B. reticulatus* they are largely confluent and longitudinally rugose; in *B. kosciuskoanus* they are uniformly round and separate. My specimen of *B. reticulatus* Pasc., is from Fernhill, Victoria; and was compared with the type in the British Museum by myself. Two other specimens from Buffalo Mountains, Vic., differ from the Fernhill specimen in having a less widely reflected margin to prothorax, and more distinctly raised costæ on the elytra. Four specimens of *B. kosciuskoanus* are before me, of which I consider there are two of each sex. If this be correct, the apparent males are smaller, narrower, more convex than the females, with the penultimate joint of the front tarsi less transverse.

CARDIOTHORAX ROTUNDICOLLIS, n.sp.

Flat, elongate-ovate. Black, moderately nitid.

Head and front with typical markings. Antennæ short and stout, with apical joints less markedly thicker than the basal joints, as in most of its allies, and clothed with reddish hairs. *Prothorax* almost flat and widely foliate at sides, and with a markedly wide raised border extending all round except at base, and middle part of apex. Much narrower at base than apex, widest at middle; base slightly curved, with the concavity towards the elytra and basal edge depressed. The front very sinuate, with middle of disc advanced and anterior angles well produced forward to meet the rounded sides at an obtuse angle. Sides widely and regularly rounded, rather abruptly contracting at base posterior angles obtuse and subobsolete. Central channel deeply, impressed throughout, except on apical border. On each side of this two deeply lineate impressions abruptly ending forward but produced at right angles to meet central channel behind. Foliate sides divided from disc by curved impression. *Elytra* ovate, deeply and regularly striate. Intervals sharply raised, about as

wide as prothorax at widest. Shoulders prominent and rounded, with strongly raised border in that region, apex narrowly rounded. *Abdomen* black, shining, epipleuræ smooth, tibiæ straight and slender, legs unarmed. *Dimensions*—14 × 4·5 mm.

Hab.—Atherton, N.Q.

A single specimen, which I take to be ♀. The marked characters of the antennæ and prothorax of this species distinguish it from all others of the genus. It is in general outline like a small *C. Walckenœrii*, from which it widely differs in all other characters. I am indebted to Mr. Sloane for this specimen which he captured himself near Atherton.*

CORIPERA BISTRIATA, n.sp. (Text fig.4).

Elongate-oval; dark bronze shining; tarsi, basal joints of palpi, knees, thoracic and elytral bands castaneous; antennæ fuscous.

Fig.4.

Head elongate, labrum salient and square, epicranium separated from clypeus by transverse ridge. Coarsely punctate. Eyes large, oval, coarsely faceted. Antennæ with the four penultimate joints triangular, apical joint spheroidal, these five joints opaque; joints 1-8 shining; 3 scarcely larger than 4, joints 1 and 2 short and beadlike. *Prothorax* irregularly and strongly rugose, transversely striolate on the sides, about as long as broad. Bisinuate and emarginate at apex, anterior angles bluntly acute; sides with undulating outline, slightly widest at middle. Hind angles sharp and subrectangular; this angle, though not dentate, emphasised by the depressed groove at base near angles. Base strongly sinuate and produced a little backwards at middle; base and apex intersected by the otherwise obsolete medial channel. Entire pronotum edged by a shining reflexed border. Sides, for the width of front and hind angles, with a light castaneous band. *Scutellum*

* A second specimen subsequently received from Cooktown, sent by Mr. Anderson of Cairns.—*Postscript*, 21st July, 1908.

small and transverse. *Elytra* a little wider than prothorax at base, humeral angles bluntly rectangular; sides parallel till near apex, then sharply narrowed to a point. A narrow, light, castaneous band running from shoulder to apex, widening at apex. A single narrow stria on each side of and close to suture, not reaching base. On each elytron about twenty-five ocellate foveæ; these not arranged in series, but scattered irregularly over the whole surface; foveæ, as well as the spaces between them, irregularly and finely punctate. The sides have a crenulate appearance, especially towards apex, due to raised "lumps" on the surface, which are continued to a modified extent on the epipleuræ. Near the scutellar region the sculpture presents an irregular strigose appearance. Underside dark bronze and smooth, except apical segment of abdomen, which is finely punctate. *Dimensions*—13 × 4·4 mm.

Hab.—Zeehan, Tas. (one specimen, kindly given to me by Mr. A. M. Lea).

A quite distinct member of this genus, easily recognised by its single stria on each elytron, and its irregular ocellate pattern, in combination with the light-coloured band.

Brycopia crenaticollis, n.sp. (Text fig.5).

Shortly ovate, convex; nitid, bronze, glabrous; antennæ, tibiæ, underside of femora castaneous; tarsi and palpi pale castaneous; abdomen dark metallic-bronze.

Head short, wide, densely punctate; eyes round and prominent. Antennæ stout, reaching (when set back) beyond base of pronotum; joints increasing in width from base to apex and closely articulate; joint 3 very little longer than 4, joint 11 much the largest and ovate. *Prothorax* convex, coarsely and regularly punctate, punctures closer than in *B. globulosa* Carter, and not tending to confluence as in *B. pilosella* Pasc.; truncate at base and apex, with apex slightly advanced in the middle, sides moderately rounded anteriorly, abruptly narrowed posteriorly, and minutely crenate at edge; anterior angles sharply obtuse, posterior angles obsolete. *Scutellum* small, transverse and

depressed below the plane of elytra. *Elytra* moderately convex, much wider than prothorax at base, shoulders squarely rounded, sides not bulging towards middle in either sex, and with rather blunt apex; striate-punctate, with ten striæ on each elytron, the last two on the sides; striæ fine, with punctures close and regular. Intervals flat, very minutely punctate, and wider near suture than at sides. Beneath densely punctate, punctures especially coarse on epipleuræ and prosternum, much finer on abdomen. Intermediate tibiæ slightly curved, the other tibiæ straight. *Dimensions*—♂, 4·5 × 2·2 mm.; ♀, 5·8 × 2·5 mm.

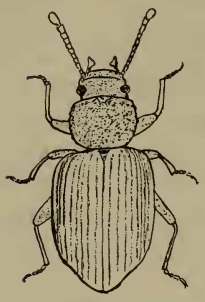

Fig.5.

Hab.—Grose Valley near Blackheath (four specimens found in rotten wood by the author).

This insect is easily distinguished from its allies by its short, rounded, and minutely but distinctly crenate sides of prothorax. It is nearest to *B. globulosa* mihi, which besides being more convex, has a much wider prothorax (in *B. globulosa* as wide as the elytra) with the punctures thereon less close and deep. The eyes are not so large as in *B. pilosella*, but are prominent, quite round when viewed from above, while the ocular cavity beneath is densely punctured. One specimen presented to the Macleay Museum, the three types in the author's collection.

BUPRESTIDÆ.

Cyria cincta, n.sp.

Elongate, depressed, black, shining, with a broad lateral vitta flavous on elytra and prothorax. Beneath shining black, with base and sides of abdominal segments and legs sparsely covered with long white hairs.

Head coarsely and unevenly punctate, with scattered whitish hairs, deeply channelled between the eyes. Antennæ fine (much finer than in *C. vittigera* Hope) and pilose. Third joint

longer than fourth, successive joints becoming thinner and shorter. *Prothorax*: width at base, 8 mm., at apex 6 mm.; length 6 mm. Apex strongly bisinuate and notched in the middle, the thick elevated border strongly raised in this region, being hollowed at the junction of the middle canal. Sides scarcely rounded, the yellow vitta not extending to apex. Base bilobed and acutely directed backwards at centre, posterior angles acute. Disc rather distantly punctate, punctures coarser and more crowded near apical angles, much finer near base at centre. Central channel marked by finely cut line throughout, widening at base and apex. *Elytra* 22 × 9 mm. Shoulders widely rounded, sides slightly incurved at middle, finely punctate-striate, the striæ fine and shallow, interstices flat; punctures in striæ small and circular, largest in the third and fourth striæ beyond base, becoming smaller by degrees towards apex, *there* very minute. Lateral vitta not extending to apex, occupying the width of three intervals (broader on shoulders), leaving, however, a narrow black border outside the vitta. Each elytron strongly bispinose at apex, inner spine formed by the termination of the sutural edges, these acutely divided at apex. Beneath, first abdominal segment with large scattered punctures; on each succeeding segment the punctures smaller and fewer. *Dimensions* —30 × 8 mm.

Hab.—Kuranda, N.Q. (taken by Mr. C. Dodd).

This fine insect, from the collection of Mr. C. French, adds a very distinct member to this small genus. It is readily distinguished by colour and its bispinose elytra, in which it most nearly approaches *C. vittigera* Hope; while in form and sculpture it is nearer *C. australis* Boisd. Type returned to Mr. C. French.

CYRIA AUSTRALIS Boisd. (*C. gagates* Hope).

Notwithstanding Saunders' note* I am convinced that the above species is quite distinct from *C. imperialis* Don. While it is probable that "melanism" may occur in the case of *C. imperialis*

* Trans. Ent. Soc. Lond. 1868, p.3.

—Boisduval specially mentions one case ('Faune de l'Océanie' p.61)—such cases are extremely rare; and some remaining mark, usually the thoracic vitta, remains to mark the species. *C. australis*, however, is a common form, with a definite habitat (South Queensland), constant in colour and form. I have examined a considerable number of both species, and note the following distinguishing characteristics :—

C. australis Boisd.—*Antennæ* finer, third joint longer than fourth. *Head*: frontal punctures fewer and more irregular. *Prothorax* without lateral yellow band; disc with four (or more) large foveate depressions; median part of disc lightly and distantly punctate, punctures small. *Elytra* of wider form, with a tendency to swollen middle; more convex; punctures in striæ small; basal part of elytra transversely strigose, especially towards sides; apex acutely angulate; sutural part longest. *Prosternum* distantly punctate. *Metasternum* faintly punctate.

C. imperialis Don.—*Antennæ* stouter, third joint about equal to fourth. *Head*: frontal punctures dense and regular. *Prothorax* with yellow band; disc in general with no regularly placed large foveæ; median part of disc much more coarsely and densely punctate, punctures large. *Elytra* of narrower and more tapering form; less convex; punctures in striæ larger; basal part without any transverse strigosity; apex rounded. *Prosternum* strongly and coarsely punctate. *Metasternum* coarsely punctate.

A specimen of *C. imperialis* from Tasmania is less coarsely and less densely punctate than specimens from the mainland, but even this presents markedly different sculpture from that of any specimens of *C. australis* that I have examined.

Stigmodera caudata, n.sp.

Oblong, feebly enlarged at the posterior third. Head, antennæ, pronotum, prosternum, and ovate patch on elytral apex brilliant shining blue. Elytra otherwise yellow with margins red. Beneath, except prosternum and legs, brilliant metallic blue-green.

Head deeply punctate, widely channelled between eyes, colour darker on clypeus than on front. *Prothorax*: length 4 mm.; width at base 7 mm., at apex 4 mm. Anterior margin produced, anterior angles acute, sides widely rounded, posterior angle acute; base strongly sinuate, median lobe produced backwards and foveate near scutellum; junction of middle and lateral lobes marked by a triangular notch on basal border. Disc very convex, central region humped, thence strongly declivous anteriorly, less steeply declivous towards sides and base. Finely and regularly punctate; without central canal. *Scutellum* blue, cordate and depressed in centre. *Elytra* 17 × 8·5 mm., widest at posterior third, wider at base than prothorax, sides slightly sinuate, apex strongly bidentate, inner tooth spinose (formed by elongation of suture), slightly longer than exterior tooth and apparently elevated. (This appearance due to convexity of disc near apex). Suture divergent at apex. Disc striate-punctate, punctures in striæ large and close, intervals convex. Yellow, except for oval apical patch blue, and red margin, the former (blue patch) narrowed near apex, then suddenly widened to include the exterior tooth. Exterior four intervals near apex sanguineous, the red margin narrowing to a single interval on sides, but not quite continued to base. Beneath: sternum deeply and regularly punctate, first segment of abdomen moderately punctate, last segment closely but more finely punctate; other segments minutely punctate. *Dimensions*—21-22 × 8-8·5 mm.

Hab.—Cairns district, N.Q. (Mr. Henry Hacker).

I am indebted to Mr. Hacker for a pair of this as of the following fine species. I have been unable to find anything like either amongst the numerous species hitherto described, nor are they known in the British Museum, whose fine collection, recently enriched by the addition of Mr. Kerremans' collection, I have lately examined. The apparent elevation of the apical portion, due to the pre-apical convexity, combined with its colour, and strongly bidentate elytra will sufficiently differentiate it.

STIGMODERA UNIMACULATA, n.sp.

Oblong-oval, moderately widened at the posterior third. Head and pronotum blue-green; antennæ, legs, and underside bright metallic-green ; elytra yellow, with a large triangular macula near, or on apex, blue-black; apical region sanguineous at sides, basal margin narrowly violaceous.

Head densely punctate, not furrowed between eyes. *Prothorax* 4 mm. long; 6 mm. wide at base, 3·5 mm. wide at apex. Anterior margins produced with angles acute, anterior margin wide and raised. Sides sinuately widened, widest behind middle, with depression near widest point (in one specimen foveate), then slightly incurved, posterior angles subrectangular; base sinuate and lobed, middle lobe moderately produced backward. Central canal strongly marked throughout. Disc moderately convex, deeply and closely punctate. *Scutellum* dark blue, cordate, slightly elevated and smooth. *Elytra* 13 mm. × 7 mm., widest behind middle; same width as prothorax at base, then sinuately widening, and rather widely rounded at apex, without dentation; suture divergent at apex. Disc striate-punctate, punctures in striæ not in general clearly marked, but evident on basal half, becoming smaller and inconspicuous towards apex, where the striæ themselves become vague or obsolete. Intervals very slightly raised. The black macula in one specimen extends to the apex; in the other it does not reach apex; with exterior four to five intervals stained red, this colour not extending beyond posterior third. Beneath, closely and regularly punctate, the punctures becoming gradually finer towards apex of abdomen. Tibiæ and tarsi clothed with short yellow hair. *Dimensions*— 18-19 × 7-8 mm.

Hab.—Cairns district, N.Q. (Mr. Henry Hacker).

In general appearance like the preceding species, but on closer view widely different and easily separated from it by its shorter and proportionately wider form, its widely different sculpture, and its undentate elytral apex. The colour and shape of the apical maculæ differ, that in *S. unimaculata* having anterior edge straight (or bisinuate with concavities facing forward); in *S. caudata* it is oval, with anterior edge convex towards the front.

STIGMODERA FLAVO-PURPUREA, n.sp.

Oval, depressed, shining, rather widely enlarged towards the apical third. Head, antennæ, prothorax, legs and undersurface a bright metallic-green. Elytra bronze-purple variegated with yellow pattern as in *S. flavo-picta* Boisd., or (regarding the yellow as the groundcolour) the purple pattern is as follows—a wide sutural and basal margin, the latter extended to form a curved longitudinal vitta from the shoulder, meeting the side again before the basal half; a postmedian fascia widened at middle, and the apex widely covered, with the front margin of apical blotch bisinuate.

Head and *prothorax* strongly and closely punctate, the former canaliculate, the latter without any sign of a median line except a shallow fovea near base; widest at base, with sides rounded. *Scutellum* metallic green, cordate and depressed in middle. *Elytra* regularly striate-punctate, intervals rather strongly convex and finely punctate. Apex narrowly and ovally (longitudinally) excised and undentate. *Sternum* coarsely, *abdomen* very finely punctate, the whole rather thickly clothed with whitish decumbent hair. *Dimensions*—10-12 mm. long; 3·6-4·6 mm. wide.

Hab.—Medlow, Blue Mountains, and Jindabyne, N. S. W. (taken by the author).

This widely spread insect has, so far as I can discover, escaped notice. There is no specimen in the British Museum or in the Kerremans Collection. The pattern is almost an exact replica of *S. flavo-picta* Boisd., as figured by Saunders (Trans. Ent. Soc. Lond. 1868, Part 1, Pl.iii. fig.29), but it differs markedly from that species (which I have from Adelaide, Tasmania, and from New South Wales) in the following respects. In shape, flatter and wider, with more sinuately widened sides to the elytra. In colour, the prothorax and abdomen are of a much brighter metallic green, while the elytral colouring is even more emphatically distinct, the darker part being of a coppery-purple. (It is blue in *S. flavo-picta*). The sculpture and clothing of the abdomen of these two species differ in a marked degree. It is altogether a handsomer and more striking species.

S. DIMIDIATA, n.sp.

Oblong-oval, subparallel; very slightly widened at the posterior third. Head, prothorax, and greater part of elytra shining peacock-blue-green; elytra adorned with yellow as follows—one elongate spot on lateral edge near shoulders; an interrupted median fascia, extending from sides, terminating at second interval from suture and widest near middle, with its hind margin nearly straight, its thickened portion extending triangularly forward; and a subapical curved fascia interrupted at first elytral interval, meeting on the sides a narrow yellow border which begins at this point and is continued nearly to apex.

Head coarsely punctate, strongly canaliculate, antennæ with basal joints blue, the rest metallic brown. *Prothorax* moderately convex, widest at base, sides lightly rounded and a little explanate at base; coarsely punctate, punctures becoming confluent and rugose towards the sides; median line scarcely indicated in front and by a smooth space and small fovea at base. *Scutellum* triangular and minutely punctate. *Elytra* striate-punctate, with intervals rather flat except on sides and towards apex, and closely rugulosely punctate. Apex excised in a small semicircle, undentate. *Sternum* and *abdomen* a brilliant metallic green, the former sparsely and finely clothed with short whitish hairs, the latter smooth; the whole underneath strongly punctate. Femora metallic green, tibiæ blue, tarsi brown, clothed with golden hair. *Dimensions*—9-12 mm. long; 3-4 mm. wide.

Hab.—Blue Mountains (taken by the author).

This species, commonly found in the Kanimbla Valley, near Blackheath, in November, has not yet, I think, been described. In colour it is not far removed from *S. subgrata* Blackb., (*S. campestris* Kerr.), but it is without the yellow border to the pronotum of that species, while the groundcolour is of a far more brilliant iridescent blue-green, which varies in different specimens. In general the blue is more prominent on the elytra, with the greener tint on the pronotum, but it is impossible to give the limits of these colours. It is besides more elongate and parallel than *S. subgrata*, with the apex of the elytra clearly excised.